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THE USE OF COSINE AREA TRANSFORM (CAT) IN MOTION ESTIMATION

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ABSTRACT

A new technique for motion analysis is presented. This technique is based on the analysis of the Cosine Area Transform (CAT) of the image sequence. The velocities of moving objects are proved to be related to the locations of the peaks in the CAT spectrum. The formulation of the Cosine Area transform of an image sequence with moving objects, and simulation results are included to demonstrate the applicability of this technique. This method is simple, and computationally efficient.